

SEQUENCE LISTING

<110> Korea Research Institute of Bioscience and Biotechnology
Realbiotech, Ltd.
RHEE, Sangki
SONG, Kibang
KIM, Chulho
RYU, Eunja
LEE, Yongbok

<120> ENZYMATIC PRODUCTION OF DIFRUCTOSE DIANHYDRIDE IV FROM SUCRO
SE
AND RELEVANT ENZYMES AND GENES CODING FOR THEM

<130> YL001019BPCT

<150> 1999-45302

<151> 1999-10-19

<160> 2

<170> PatentIn version 3.0

<210> 1

<211> 2001

<212> DNA

<213> Arthrobacter ureafaciens K2032

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<211> 521

<212> PRT

<213> *Arthrobacter ureafaciens* K2032

<400> 2

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Gly Ala Leu Ala Leu Ile Phe Gly Gly Ala Val Pro Pro Ala Ala Arg
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Ala Ser Ala Pro Gly Ser Leu Arg Ala Val Tyr His Met Thr Pro Pro
35 40 45

Ser Gly Trp Leu Cys Asp Pro Gln Arg Pro Val Thr Thr His Gly Ala
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Tyr Gln Leu Tyr Tyr Leu His Ser Asp Gln Asn Asn Gly Pro Gly Gly
65 70 75 80

Trp Asp His Ala Ser Thr Thr Asp Gly Val Ala Phe Thr His His Gly
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Thr Val Met Pro Leu Arg Pro Asp Phe Pro Val Trp Ser Gly Ser Ala

WO 01/29185

PCT/KR00/01183

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145	150	155 160
Asp Pro Val Ile Val Asn Thr Asp Gly Arg Ala Ala Thr Thr Pro Ala		
165	170	175
Glu Ile Glu Asn Ala Glu Trp Phe Arg Asp Pro Lys Ile His Trp Asp		
180	185	190
Thr Ala Arg Gly Glu Trp Val Cys Val Ile Gly Arg Leu Arg Tyr Ala		
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Ala Phe Tyr Thr Ser Pro Asn Leu Arg Asp Trp Thr Leu Arg Arg Asn		
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Phe Asp Tyr Pro Asn His Ala Leu Gly Gly Ile Glu Cys Pro Asp Leu		
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Phe Glu Ile Thr Ala Asp Asp Gly Thr Arg His Trp Val Leu Ala Ala		
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Ser Met Asp Ala Tyr Gly Ile Gly Leu Pro Met Thr Tyr Ala Tyr Trp		
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Thr Gly Thr Trp Asp Gly Glu Gln Phe His Ala Asp Asp Leu Thr Pro		
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Gln Trp Leu Asp Trp Gly Trp Asp Trp Tyr Ala Ala Val Thr Trp Pro		
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Ser Ile Asp Ala Pro Glu Thr Lys Arg Leu Ala Ile Ala Trp Met Asn		
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Asn Trp Lys Tyr Ala Ala Arg Asp Val Pro Thr Asp Ala Ser Asp Gly		
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Val Val Arg Glu Ile Gly Gln Ala Ile
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cgactgctcc tcagcctaga cgggcccctc ctcgaggtct tcgtcgggga cggtgaggcg

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actgcgtcga acctggtcct cctggggggcc ggcggtgtga ccgcgagcct cgagacggca

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2001

<210> 2

<211> 521

<212> PRT

<213> *Arthrobacter ureafaciens* K2032

<400> 2

Met Thr Pro Ala Ile Ser Arg Arg Ala Val Leu Gln Gly Ala Gly Ala

1 5 10 15

Gly Ala Leu Ala Leu Ile Phe Gly Gly Ala Val Pro Pro Ala Ala Arg

20 25 30

Ala Ser Ala Pro Gly Ser Leu Arg Ala Val Tyr His Met Thr Pro Pro

35 40 45

Ser Gly Trp Leu Cys Asp Pro Gln Arg Pro Val Thr Thr His Gly Ala

50 55 60

Tyr Gln Leu Tyr Tyr Leu His Ser Asp Gln Asn Asn Gly Pro Gly Gly

65 70 75 80

Trp Asp His Ala Ser Thr Thr Asp Gly Val Ala Phe Thr His His Gly

85 90 95

Thr Val Met Pro Leu Arg Pro Asp Phe Pro Val Trp Ser Gly Ser Ala

WO 01/29185

PCT/KR00/01183

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Ala Leu Ala Thr Gln Pro Thr Asp Gly Val Arg Lys Tyr Gln Glu Gln
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Asp Pro Val Ile Val Asn Thr Asp Gly Arg Ala Ala Thr Thr Pro Ala
165 170 175
Glu Ile Glu Asn Ala Glu Trp Phe Arg Asp Pro Lys Ile His Trp Asp
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Thr Ala Arg Gly Glu Trp Val Cys Val Ile Gly Arg Leu Arg Tyr Ala
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Phe Asp Tyr Pro Asn His Ala Leu Gly Gly Ile Glu Cys Pro Asp Leu
225 230 235 240
Phe Glu Ile Thr Ala Asp Asp Gly Thr Arg His Trp Val Leu Ala Ala
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Ser Met Asp Ala Tyr Gly Ile Gly Leu Pro Met Thr Tyr Ala Tyr Trp
260 265 270
Thr Gly Thr Trp Asp Gly Glu Gln Phe His Ala Asp Asp Leu Thr Pro
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WO 01/29185

PCT/KR00/01183

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